In the Claims:

Please cancel claims 13, 14, 19, 20, 26, 27 and 32-54, replace claims 1, 3-8, 10-12, 15, 17, 18, 21, 23-25, 28, 30 and 31, and add claims 55-59, all as shown below. All pending claims are reproduced below.

1. (Currently Amended): A template pattern for a reference surface of a disk ~~connected with~~ for a hard disk drive having ~~at least one~~ a head connected with a rotary actuator, the template pattern comprising:

~~at least one~~ a servo wedge having a first end ~~at an inner diameter of the disk~~ and a second end disposed between the first end and an outer diameter of the disk, ~~at an outer diameter of the disk, each~~ the servo wedge including:

a plurality of pulses extending ~~along a stroke~~ from the first end to the second end;

a plurality of zig-bursts extending from the first end to the second end, ~~each zig-burst~~ the zig-bursts forming a ~~variable~~ zig angle relative to the plurality of pulses, the zig angle varying along at least a portion of the plurality of zig-bursts; and

a plurality of zag-bursts extending from the first end to the second end, ~~each zag-burst~~ the zag-bursts forming a ~~negative chevron~~ zag angle relative to the plurality of pulses, the zag angle being a chevron angle; and

wherein the ~~variable~~ zig angle at the second end is a chevron angle and the ~~variable~~ zig angle at the first end is less than the chevron;

wherein the zig angle and the zag angle diverge from the plurality of pulses in opposite directions relative to the plurality of pulses.

2. (Original): The template pattern of claim 1, wherein the plurality of pulses trace an arc from the first end to the second end such that the arc follows a motion of the head.

3. (Currently Amended): The template pattern of claim 1, wherein ~~each pulse~~ the plurality of pulses can be continuous or discontinuous ~~along the stroke~~.

4. (Currently Amended): The template pattern of claim 1, wherein the ~~variable~~ zig angle ~~increases~~ varies continuously between the first end and the second end.

5. (Currently Amended): The template pattern of claim 1, wherein the ~~variable~~ zig angle abruptly changes from ~~less than the chevron~~ a variable angle to the chevron angle.

6. (Currently Amended): The template pattern of claim 1, wherein the ~~chevron~~ zig angle is equivalent to ~~head skew~~ approximately a sum of the chevron angle and a skew of the head at the first end.

7. (Currently Amended): The template pattern of claim 6, wherein the ~~variable~~ zig angle is constant relative to a radial line extending from the first end to the second end.

8. (Currently Amended): A template pattern for a reference surface of a disk ~~connected with~~ for a hard disk drive having ~~at least one~~ a head connected with a rotary actuator, the template pattern comprising:

~~at least one~~ a servo wedge having a first end ~~at an inner diameter of the disk~~ and a second end disposed between the first end and an outer diameter of the disk, ~~at an outer diameter of the disk, each~~ the servo wedge including:

a plurality of pulses extending ~~along a stroke~~ from the first end to the second end;

a plurality of zig-bursts extending from the first end to the second end, ~~each zig-burst~~ the zig-bursts forming a ~~variable~~ zig angle relative to the plurality of pulses, the zig angle varying along at least a portion of the plurality of zig-bursts; and

a plurality of zag-bursts extending from the first end to the second end, ~~each zag-burst~~ the zag-bursts forming a ~~negative chevron~~ zag angle relative to the plurality of pulses, the zag angle being a chevron angle; and

wherein the ~~variable~~ zig angle at the first end is zero and the ~~variable~~ zig angle at the second end is a chevron angle;

wherein the zig angle and the zag angle diverge from the plurality of pulses in opposite directions relative to the plurality of pulses.

9. (Original): The template pattern of claim 8, wherein the plurality of pulses trace an arc from the first end to the second end such that the arc follows a motion of the head.

10. (Currently Amended): The template pattern of claim [8] 9, wherein ~~each pulse~~ the plurality of pulses can be continuous or discontinuous along the ~~stroke~~ arc.

11. (Currently Amended): The template pattern of claim 8, wherein the ~~variable~~ zig angle ~~increases~~ varies continuously between the first end and the second end.

12. (Currently Amended): The template pattern of claim 8, wherein the ~~variable~~ zig angle abruptly changes from zero to the chevron angle.

13. (Canceled)

14. (Canceled)

15. (Currently Amended): A template pattern for a rotatable data storage medium, the template pattern comprising:

~~at least one~~ a servo wedge having a first end and a second end, each servo wedge including:

a plurality of pulses extending along a stroke from the first end to the second end, each pulse being continuous or discontinuous;

a plurality of zig-bursts disposed along the stroke, ~~each zig-burst~~ the zig-bursts forming a ~~varying~~ zig angle relative to the plurality of pulses, the zig angle varying along at least a portion of the plurality of zig-bursts; and

a plurality of zag-bursts disposed along the stroke, ~~each zag-burst~~ the zag-bursts forming a ~~negative chevron~~ zag angle relative to the plurality of pulses, wherein the zag angle is a chevron angle;

wherein the ~~varying~~ zig angle at the first end is zero and the ~~varying~~ zig angle at the second end is a chevron angle;

wherein the zig angle and the zag angle diverge from the plurality of pulses in opposite directions relative to the plurality of pulses.

16. (Original): The template pattern of claim 15, wherein the plurality of pulses trace an arc from the first end to the second end.

17. (Currently Amended): The template pattern of claim 15, wherein the ~~variable~~ zig angle ~~increases~~ varies continuously between the first end and the second end.

18. (Currently Amended): The template pattern of claim 15, wherein the ~~variable~~ zig angle abruptly changes from zero to the chevron angle.

19. (Canceled)

20. (Canceled)

21. (Currently Amended): A template pattern for a reference surface of a disk ~~connected with~~ for a hard disk drive having ~~at least one~~ a head connected with a rotary actuator, the template pattern comprising:

~~at least one~~ a servo wedge having a first end ~~at an inner diameter of the disk~~ and a second end disposed between the first end and an outer diameter of the disk, ~~at an outer diameter of the disk, each~~ the servo wedge including:

a plurality of pulses extending ~~along a stroke~~ from the first end to the second end;

a plurality of zig-bursts extending from the first end to the second end, ~~each zig-burst~~ the zig-bursts forming a ~~negative chevron~~ zig angle relative to the plurality of pulses, wherein the zig angle is a chevron angle; and

a plurality of zag-bursts extending from the first end to the second end, ~~each zag-burst~~ the zag-bursts forming a ~~variable~~ zag angle relative to the plurality of pulses, the zig angle varying along at least a portion of the plurality of zig-bursts;

wherein the ~~variable~~ zag angle at the first end is zero and the ~~variable~~ zag angle at the second end is a chevron angle;

wherein the zig angle and the zag angle diverge from the plurality of pulses in opposite directions relative to the plurality of pulses.

22. (Original): The template pattern of claim 21, wherein the plurality of pulses trace an arc from the first end to the second end such that the arc follows a motion of the head.

23. (Currently Amended): The template pattern of claim [21] 22, wherein ~~each pulse~~ the plurality of pulses can be continuous or discontinuous along the ~~stroke~~ arc.

24. (Currently Amended): The template pattern of claim 21, wherein the ~~variable~~ zag angle ~~increases~~ varies continuously between the first end and the second end.

25. (Currently Amended): The template pattern of claim 21, wherein the ~~variable~~ zag angle abruptly changes from zero to the chevron angle.

26. (Canceled)

27. (Canceled)

28. (Currently Amended): A template pattern , comprising:

~~at least one~~ a servo wedge having a first end and a second end, each servo wedge including:

a plurality of pulses extending ~~along a stroke~~ from the first end to the second end, each pulse being continuous or discontinuous;

a plurality of zig-bursts extending from the first end to the second end, ~~each zig-burst~~ the zig-bursts forming a ~~negative chevron~~ zig angle relative to the plurality of pulses, wherein the zig angle is a chevron angle; and

a plurality of zag-bursts extending from the first end to the second end, ~~each zag-burst~~ the zag-bursts forming a ~~varying~~ zag angle relative to the plurality of pulses;

wherein the ~~varying~~ zag angle at the first end is zero and the ~~varying~~ zag angle at the second end is a chevron angle;

wherein the zig angle and the zag angle diverge from the plurality of pulses in opposite directions relative to the plurality of pulses.

29. (Original): The template pattern of claim 28, wherein the plurality of pulses trace an arc from the first end to the second end.

30. (Currently Amended): The template pattern of claim 28, wherein the ~~variable~~ zag angle ~~increases~~ varies continuously between the first end and the second end.

31. (Currently Amended): The template pattern of claim 28, wherein the ~~variable~~ zag angle abruptly changes from zero to the chevron angle.

32-54. (Canceled)

55. (New): A template pattern of a disk for a hard disk drive, the hard disk drive having a head connected with a rotary actuator, the template pattern comprising:

a servo wedge having a first end and a second end disposed between the first end and an outer diameter of the disk, the servo wedge including:

a pulse extending from the first end to the second end;

a plurality of zag-bursts extending from the first end to the second end, the zag-bursts forming a zag angle relative to the pulse, the zag angle varying along at least a portion of the zag-bursts; and

a plurality of zig-bursts extending from the first end to the second end, the zig-burst forming a zig angle relative to the pulse, the zig angle being a chevron angle; and

wherein the zag angle at the second end is the chevron angle and the zag angle at the first end is less than the chevron;

wherein the zig angle and the zag angle diverge from the pulse in opposite directions relative to the pulse.

56. (New): The template pattern of claim 55, wherein the pulse traces a path roughly corresponding to a path of the head when the head is moved from the first end to the second end.

57. (New): The template pattern of claim 55, wherein the zag angle varies continuously between the first end and the second end.

58. (New): The template pattern of claim 55, wherein the zag angle abruptly changes from zero to the chevron angle.

59. (New): The template pattern of claim 55, wherein the zag angle is equivalent to approximately a sum of the chevron angle and a skew of the head at the first end.